

Reasons for Allowance

1. The following is an examiner's statement of reasons for allowance: In response to the Office action dated September 19, 2007, and further to the amendments filed on December 19, 2007, applicant's request in view of the amendments and remarks have been reviewed and respectfully considered. Claims 1-14, 16-7 and 23-24 are cancelled by applicant's amendment as indicated in page 1-8 of the applicant's response dated on 11/19/07. Therefore, the pending claims 15 and 18-22, 25-28 are believe to be allowable for the reasons given below:

With respect to claim 15, [i.e., independent] is allowed for the reason the prior art searched and of record neither anticipates nor suggests a plurality of photoelectric conversion elements arranged in a main scanning direction, each of the plurality of photoelectric conversion elements generating an analog image signal corresponding to an amount of incident light thereon, the plurality of photoelectric conversion elements being divided into plural groups, each of the plural group including a predetermined number (N) of the photoelectric conversion elements a plurality of switching elements connected to respective ones of the plurality of photoelectric conversion elements, individually; a control unit that controls the plurality of switching elements in response to an external clock signal to simultaneously output the image signals from the predetermined number of photoelectric conversion elements in one of the plural groups; and signal output lines with a number of N, wherein the predetermined number of photoelectric conversion elements in each of the plural groups are connectable with the

respective ones of the signal output lines through the switching elements, individually, to output the image signals from the predetermined number of photoelectric conversion elements to the signal output lines; a multiplexer connected to the image sensor for multiplexing the image signal transferred from one of the photoelectric conversion elements through the corresponding one of the output signal lines; and a sample-and-hold circuit connected to the image sensor for temporarily storing the image signals transferred from the photoelectric conversion elements in one group through the corresponding ones of the switching elements and the signal output lines; wherein the multiplexer is configured to connect with the image sensor so that one output signal line connects the image sensor to the multiplexer directly and the other output signal lines connect the image sensor to the multiplexer through the sample-and-hold circuit.

Further, **Regarding claim** 18 [i.e., independent] the prior art searched and of record fails to disclose An image reading apparatus comprising: an image sensor that includes: a plurality of photoelectric conversion elements arranged in a main scanning direction, each of the plurality of photoelectric conversion elements generating an analog image signal corresponding to an amount of incident light thereon, the plurality of photoelectric conversion elements being divided into plural groups, each of the plural groups including a predetermined number (N) of the photoelectric conversion elements; a plurality of switching elements connected to respective ones of the plurality of photoelectric conversion elements, individually; and a control unit that controls the plurality of switching elements in response to an external clock signal to simultaneously output the image signals from the predetermined number of photoelectric conversion

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elements in one of the plural groups, wherein the predetermined number of photoelectric conversion elements in each of the plural groups are connectable with the respective ones of the signal output lines through the switching elements, individually, to output the image signals from the predetermined number of photoelectric conversion elements to the signal output lines; a multiplexer having signal input terminals with a number equal to N and a signal output terminal, the multiplexer being connected to the image sensor so that the multiplexer receives the image signals from the plural photoelectric conversion elements that belong to one of the groups through the signal input terminals simultaneously; an analog-to-digital converter connected to the signal output terminal of the multiplexer for converting the analog image signal supplied sequentially from the multiplexer into a digital signal; and resolution switching unit that select one of a high resolution mode in which all the image signals from the photoelectric conversion elements that belong to each of the groups are supplied sequentially to the analog-to-digital converter and a low resolution mode in which the image signals are thinned out and then supplied to the analog-to-digital converter.

Therefore, the above indicted application as discussed in both claims 15 and 18 are allowable for the reason the prior art searched and of record neither anticipates nor suggests the claimed invention, and claims 19-22,25-28 (i.e., dependent claims] are also allowed for being dependent on allowed claim 15 and 18.

Conclusion

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to NEGUSSIE WORKU whose telephone number is (571)272-7472. The examiner can normally be reached on 9A-6PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Coles can be reached on 571-272-7402. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Negussie Worku/

Examiner, Art Unit 2625